

What is Claimed is:

1. A data processing unit for executing an encrypted software program, the data processing unit comprising:

a processor for decrypting the encrypted software program and for executing software program, the processor including an identifying number; and

a memory unit, the memory unit storing the decryption procedure the encrypted program being encrypted using at least a portion of the identifying number;

wherein, when the processor is to execute the software program, the software program is decrypted using the at least a portion of the identifying number.

2. The data processing unit as recited in claim 1 wherein the encrypted software program is stored in the memory unit.

3. The data processing unit as recited in claim 1 further comprising an external memory unit, wherein the encrypted software program is stored in an external memory unit.

4. The data processing unit as recited in claim 1 wherein the identifying number is a serial number.

5. The data processing unit as recited in claim 1 wherein the identifying number is associated with a plurality of data processing units.

6. A method for protecting software programs, the method comprising:

providing a data processing unit with an identifying  
5 number;

encrypting a software program external to the data  
processing unit using at least a portion of the identifying  
number; and

10 decrypting the encrypted software program prior for  
execution of the software program by the data processing  
unit.

7. The method as recited in claim 6 further comprising  
the step of storing the identifying number in non-volatile  
15 memory unit accessible to the data processing unit.

8. The method as recited in claim 7 wherein the  
identifying number is a serial number for the data  
processing unit.

20 9. The method as recited in claim 7 wherein the encrypted  
software program is stored external to the data processing  
unit.

25 10. The method as recited in claim 7 wherein the encrypted  
program is stored in data processing unit.

11. A data processing system, the system comprising:

a data processing unit, the data processing unit including an identifying number stored therein; and

a decryption unit, the decryption unit decrypting  
5 software programs using a decryption key based on the identifying number;

wherein the data processing unit decodes an encrypted software program applied thereto using the decryption key.

10 12. The system as recited in claim 11 wherein the identifying number is the data processing unit serial number.

13. The system as recited in claim 11 further comprising a  
15 memory unit external to the data processing unit, the memory unit storing encrypted software programs.

14. The system as recited in claim 11 further comprising a  
memory unit in the data processing unit, the memory unit  
20 storing encrypted software programs.

15. The system as recited in claim 11 wherein an encrypted program is decrypted as an entity or on the fly prior to execution of the software program by the data processing  
25 unit.

16. The system as recited in claim 11 wherein the encrypted program is stored external to the data processing unit.

5 17. The system as recited in claim 11 wherein an encrypted program is stored in the data processing unit.

18. The system as recited in claim 15 wherein decrypted portions of the software program are stored in a protected  
10 memory unit accessible to only the associated data processing unit.

19. The method for protecting a software file, the method comprising:

15 providing a target processor having an identifying/serial number accessible only to the target processor;

encrypting the software file using at least a portion of the identifying/serial number; and

20 applying the encrypted software file to the target processor.

20. The method as recited in claim 19 further comprising, in the target processor, decrypting the encrypted software  
25 file based on the identifying serial number.

21. An apparatus for secure transfer of software files, the apparatus comprising:

a first processor, the first processor having a program for encrypting a software file; and

a second processor, the second processor having a program for decrypting software files using at least a portion of an identifying/serial number stored in the second processor, the stored identifying/serial number accessible only to the target processor;

wherein the first processor encrypts the software file using a copy of the at least a portion of the identifying/serial number.

22. The apparatus as recited in claim 21 wherein the copy of the at least a portion of the identifying/serial number is accessible only to the first processor.

23. The apparatus as recited in claim 22 wherein the at least a portion of the identifying/serial number is accessed by the first processor based on an indicia of the second processor.

24. The apparatus as recited in claim 21 wherein an encrypted software file is stored in an unsecured storage unit.

25. The apparatus as recited in claim 21 wherein the encrypted software file is stored in an unsecured storage unit prior to decryption.